BEAM PENTODE

COATED UNIPOTENTIAL CATHODE

HEATER
25 VOLTS 0.6 AMP.
AC OR DC

VERTICAL MOUNTING POSITION
HORIZONTAL OPERATION IS PERMITTED
IF PINS 2 AND 7 ARE IN A VERTICAL
PLANE.

GLASS BULB

THE 25CD6GB IS A BEAM PENTODE DESIGNED FOR USE AS A HORIZONTAL DEFLECTION AMPLIFIER IN 600 MA. SERIES HEATER OPERATED TELEVISION RECEIVERS. FEATURES OF THIS TUBE ARE AN EXTREMELY HIGH PERVERSE, HIGH PLATE CURRENT AT LOW PLATE AND SCREEN VOLTAGES AND A HIGH RATIO OF PLATE TO SCREEN CURRENT. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED.

DIRECT INTERELECTRODE CAPACITANCES — APPROX.

GRID #1 TO PLATE 1.1 µµf
INPUT 22 µµf
OUTPUT 8.5 µµf

RATINGS

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM A

HORIZONTAL-DEFLECTION AMPLIFIER SERVICE B

HEATER VOLTAGE 25 VOLTS

MAXIMUM HEATER-CATHODE VOLTAGE:
HEATER POSITIVE WITH RESPECT TO CATHODE DC
TOTAL DC AND PEAK 100 VOLTS
HEATER NEGATIVE WITH RESPECT TO CATHODE DC AND PEAK 200 VOLTS

MAXIMUM DC PLATE-SUPPLY VOLTAGE (BCOST + DC POWER SUPPLY)
700 VOLTS

MAXIMUM PEAK POSITIVE PULSE PLATE VOLTAGE 7000 VOLTS
MAXIMUM NEGATIVE PULSE PLATE VOLTAGE 1500 VOLTS
MAXIMUM GRID #2 VOLTAGE 175 VOLTS
MAXIMUM PEAK NEGATIVE GRID #1 VOLTAGE 200 VOLTS
MAXIMUM PLATE DISSIPATION C
20 WATTS
MAXIMUM GRID #2 DISSIPATION 3.0 WATTS
MAXIMUM DC CATHODE CURRENT 200 MA.

MAXIMUM PEAK CATHODE CURRENT 700 MA.
MAXIMUM GRID #4 CIRCUIT RESISTANCE 0.47 MEGOHM
MAXIMUM BULB TEMPERATURE (AT HOTTEST POINT) 225 °C
HEATER WARM-UP TIME (APPROX.)*
11.0 SECONDS

A WORLLESS OTHERWISE SPECIFIED.
B FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION" THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT TO EXCEED 15 PERCENT OF A SCANNING CYCLE.
C IN STAGES OPERATING WITH GRID-LEAK BIAS, AN ADEQUATE CATHODE BIAS RESISTOR OR OTHER SUITABLE MEANS IS REQUIRED TO PROTECT THE TUBE IN THE ABSENCE OF EXCITATION.

*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

INDICATES A CHANGE.
CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Unit</th>
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<tbody>
<tr>
<td>HEATER VOLTAGE</td>
<td>25</td>
<td></td>
<td>VOLTS</td>
</tr>
<tr>
<td>HEATER CURRENT</td>
<td>0.6</td>
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<td>AMP.</td>
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<tr>
<td>PLATE VOLTAGE</td>
<td>60</td>
<td>175</td>
<td>VOLTS</td>
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<tr>
<td>GRID #2 VOLTAGE</td>
<td>100</td>
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<td>VOLTS</td>
</tr>
<tr>
<td>GRID #1 VOLTAGE</td>
<td>0°</td>
<td>-30</td>
<td>VOLTS</td>
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<tr>
<td>PLATE RESISTANCE (APPROX.)</td>
<td>---</td>
<td>7 200</td>
<td>OHMS</td>
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<tr>
<td>TRANSCONDUCTANCE</td>
<td>---</td>
<td>7 700</td>
<td>ΩMHO.</td>
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<td>PLATE CURRENT</td>
<td>230</td>
<td>75</td>
<td>MA.</td>
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<tr>
<td>GRID #2 CURRENT</td>
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<td>5.5</td>
<td>MA.</td>
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<tr>
<td>GRID #4 VOLTAGE (APPROX.)</td>
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<td>-55</td>
<td>VOLTS</td>
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<tr>
<td>FOR I_b = 4.0 MA.</td>
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<tr>
<td>TRIODE AMPLIFICATION FACTOR</td>
<td>---</td>
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</tbody>
</table>

*Applied for very short interval so as not to damage tube.*

*Triode connection (screen tied to plate) with E_b = E_c2 = 175 VOLTS and E_c1 = -30 VOLTS.*

**Similar Type Reference:** The 25CD6GB is identical to the 6CD6GA except for heater ratings and heater warm-up time.